

## Abstract

The fiber optic isolator of the present invention transports data signals between high voltage power lines and a communications interface device, bypassing a step down transformer to low voltage power. The communication interface device includes a low voltage power line as well as telecommunications and wireless interfaces. The signals are coupled and de-coupled off of a high voltage power line by a power line coupler. The fiber optic isolator gets the signals (in light form) and transports them to and from the communications interface device. This insulates the system from current flow between the high voltage power lines and the communications interface.

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